

## Amendments to the Specification:

Please replace the paragraph beginning at page 1, line 1 with the following rewritten paragraph:

### DESCRIPTION

#### ~~METHOD FOR GENERATING HYDROGEN GAS, APPARATUS FOR PRODUCING HYDROGEN GAS, AND ENERGY CONVERSION SYSTEM~~

##### Technical Field

~~—The present invention relates to a method for generating hydrogen gas, an apparatus for producing hydrogen gas, and an energy conversion system.~~

##### Background Art

### SPECIFICATION

#### TITLE OF THE INVENTION

~~“ANODE MATERIAL AND MANUFACTURING METHOD THEREOF, AND  
BATTERY”~~ METHOD FOR GENERATING HYDROGEN GAS, APPARATUS FOR  
PRODUCING HYDROGEN GAS, AND ENERGY CONVERSION SYSTEM

#### CROSS REFERENCES TO RELATED APPLICATIONS

The present application claims priority to Japanese Patent Document No. P2002-244890 filed on August 26, 2002, the disclosure of which is herein incorporated by reference.

#### BACKGROUND OF THE INVENTION

The present invention relates to a method for generating hydrogen gas, an apparatus for producing hydrogen gas, and an energy conversion system.

Please replace the paragraph beginning at page 5, line 11 with the following rewritten paragraph:

~~The present invention was completed to address the above-mentioned problems. It is an object of the present invention to provide a method for generating hydrogen gas, an apparatus for producing hydrogen gas, and an energy conversion system, which are so~~

~~designed as to work without inhomogeneous catalytic reactions at the solid-liquid interface, to generate hydrogen extremely efficiently without the help of catalyst, and to retain high reliability throughout repeated and long-term operations.~~

~~Disclosure of the Invention~~

SUMMARY OF THE INVENTION

The present invention relates to a method for generating hydrogen gas, an apparatus for producing hydrogen gas, and an energy conversion system.

The present invention in an embodiment provides a method for generating hydrogen gas, an apparatus for producing hydrogen gas, and an energy conversion system, which are so designed as to work without inhomogeneous catalytic reactions at the solid-liquid interface, to generate hydrogen extremely efficiently without the help of catalyst, and to retain high reliability throughout repeated and long-term operations.

Please add the following new paragraph after the paragraph ending on line 21 of page 7:

Additional features and advantages of the present invention are described in, and will be apparent from, the following Detailed Description of the Invention and the figures.

Please replace the paragraph beginning at page 7, line 22 with the following rewritten paragraph:

~~Brief Description of the Drawings~~

BRIEF DESCRIPTION OF THE FIGURES

Please replace the paragraph beginning at page 8, line 28 with the following rewritten paragraph:

~~Best Mode for Carrying out the Invention~~

DETAILED DESCRIPTION OF THE INVENTION

The present invention relates to a method for generating hydrogen gas, an apparatus for producing hydrogen gas, and an energy conversion system.

Please add the following new paragraph after the paragraph ending on line 15 of page 35:

It should be understood that various changes and modifications to the presently preferred embodiments described herein will be apparent to those skilled in the art. Such changes and modifications can be made without departing from the spirit and scope of the present invention and without diminishing its intended advantages. It is therefore intended that such changes and modifications be covered by the appended claims.

Please replace the paragraph beginning at page 45, line 1 with the following rewritten paragraph:

#### ABSTRACT

~~Disclosed herein are a method for generating hydrogen gas, an apparatus for producing hydrogen gas, and an energy conversion system, which are so designed as to generate hydrogen extremely efficiently without the help of catalyst.~~

~~The hydrogen gas is generated by decomposing a metal hydride represented by the formula (1) below in a mixture composed of said metal hydride, water, and a second solution which has a pH value lower than that of the aqueous solution of said metal hydride.~~

~~Formula (1) :  $\alpha_{z(1-x)}\beta_{zx}[\text{BH}_y]$~~

~~(where  $\alpha$  and  $\beta$  are mutually different elements selected from Groups 1A, 2A, and 2B of the periodic table; and x, y, and z are defined respectively by  $0 \leq x \leq 1$ ,  $3 < y < 6$ , and  $0 < z < 3$ .)~~

~~The hydrogen gas generating apparatus is composed of a first reservoir to store the aqueous solution of the metal hydride, a second reservoir to store a second solution which has a pH value lower than that of said aqueous solution, and a reactor to mix together said aqueous solution and said second solution, thereby generating hydrogen gas. The thus evolved hydrogen gas is converted into electrochemical energy by the energy conversion apparatus.~~

#### ABSTRACT OF THE DISCLOSURE

A method for generating hydrogen gas, an apparatus for producing hydrogen gas, and an energy conversion system, which are so designed as to generate hydrogen extremely efficiently without the help of catalyst are provided.

The hydrogen gas is generated by decomposing a metal hydride in a mixture composed of said metal hydride, water, and a second solution which has a pH value lower than that of the aqueous solution of said metal hydride wherein the metal hydride is represented by a formula:  $\alpha_{z(1-x)}\beta_{zx}[\text{BH}_y]$ , where  $\alpha$  and  $\beta$  are mutually different elements selected from Groups 1A, 2A, and 2B of the periodic table; and x, y, and z are defined respectively by  $0 \leq x \leq 1$ ,  $3 < y < 6$ , and  $0 < z < 3$ .

The hydrogen gas generating apparatus is composed of a first reservoir to store the aqueous solution of the metal hydride, a second reservoir to store a second solution which has a pH value lower than that of said aqueous solution, and a reactor to mix together said aqueous solution and said second solution, thereby generating hydrogen gas. The thus evolved hydrogen gas is converted into electrochemical energy by the energy conversion apparatus.